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RESPONSE UNDER 37 C.F.R. § 1.116
EXPEDITED PROCEDURE
EXAMINING GROUP 2100

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named
Inventor :

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Appln. No.: 10/607,967

Filed : June 27, 2003

For : COMPUTATION OF BRANCH METRIC
VALUES IN A DATA DETECTOR

Docket No.: S104.12.0037/STL 11305

Group Art Unit: 2133

Examiner:

Mujtaba M. Chaudry

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

I HEREBY CERTIFY THAT THIS PAPER IS
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PATENT ATTORNEY

Sir:

Applicant respectfully requests a Pre-Appeal Brief Review of the objection to FIGS. 1 and 2-1 for not including a legend such as – Prior Art – .

Also, Applicant respectfully requests Pre-Appeal Brief Review of the rejection of claims 1, 11 and 20 under ¶102(b) based on Kavcic et al. U.S. Patent No. 6,438,180 (“Kavcic”), since the rejection is based on clear error of fact and omission of essential elements to establish a prima facie rejection. The rejection is unsupported by Kavcic.

Similar review of the rejection of dependent claims 3-6, 9-10, 13-16 and 19 under ¶103(a) based on Kavcic is requested.

A. Drawings.

With regard to FIGS. 1 and 2-1, page 2 of the Office Action states that “a figure is only acceptable without a ‘Prior Art’ label if that which is depicted incorporates the novel feature of the invention.” Applicant respectfully points out that FIG. 2-1 shows an example read channel 200 that includes data detection and recovery circuitry 204 (shown in greater detail in FIG. 2-2), which incorporates features of example embodiments of the present invention. Example disc drive 100, of

FIG. 1, includes the example read channel of FIG. 2-1. Thus, FIGS. 1 and 2-1 incorporate novel features of the present invention and therefore are acceptable without a label of "Prior Art" according to the statement on page 2 of the Office Action. Thus, the objection should be withdrawn.

B. Independent claims 1, 11 and 20.

Independent claim 1, which is directed to a method of determining branch metric values in a detector, includes "(a) receiving time variant signal samples; and (b) computing the branch metric values as a function of transition jitter statistics corresponding to the signal samples." (Emphasis Added.)

Independent claim 11, which is directed to a detector, includes "branch metric calculation modules configured to determine branch metric values by: (a) receiving time variant signal samples; and (b) computing the branch metric values as a function of transition jitter statistics corresponding to the signal samples." (Emphasis Added.)

Independent claim 20, which is directed to a detector, includes "means for computing branch metric values as a function of transition jitter statistics corresponding to signal samples received by the detector." (Emphasis Added.)

C. Claim Arguments

1. Claims rejected under ¶102(b)

As noted above, claims 1, 11 and 20 require "transition jitter statistics." The Office Action suggests that since FIG. 2 of Kavcic includes a Viterbi detector 30 and a noise statistics tracker 34, Kavcic teaches transition jitter statistics. Applicant respectfully points out that nowhere in the Kavcic reference is there any teaching of transition jitter statistics.

The Office Action, with no apparent basis, concludes that noise statistics tracker 34 of Kavcic deals with transition jitter statistics. As noted at the bottom of page 18 of the Applicant's Specification, transition jitter is a component of media noise and is dependent upon positions of data transitions. Kavcic does not address noise in connection with the position domain, but provides multiple examples (in columns 6 and 7) of branch metric calculations based on variations in amplitudes of pulses (signal dependent noise and correlated noise). Addressing noise in the

amplitude domain, in a manner taught by Kavcic, does not produce transition jitter statistics.

Since Kavcic does not teach transition jitter statistics, claims 1, 11 and 20 are not anticipated by Kavcic and are allowable. Dependent claims 2, 7-8, 12 and 17-18 are also allowable at least by virtue of their dependency, either directly or indirectly, from the allowable independent claims.

2. Claims rejected under ¶103(a)

For reasons provided above, Kavcic does not teach transition jitter statistics. Kavcic also does not suggest that feature. Consequently, dependent claims 3-6, 9-10, 13-16 and 19 are also allowable at least by virtue of their dependency, either directly or indirectly, from the allowable independent claims.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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